# CERTIFICATE OF TRANSMISSION BY FACSIMILE (37CFR1.8)

# PLEASE DELIVER TO EXAMINER TUAN T. DINH

Docket No.	END920000087US1 (IEN-	10-5540)		
Applicant(s):	: Hall et al			
Serial No.	Filing Date	Examiner	Group Art Unit	
09/811.101	March 16, 2001	Tuan T. Dinh	2827 FAX RECEIVED	)
			MAR - 7 2003	
Invention:	MULTI-LAYERED HIGH DI	ENSITY CONNECT	TECHNOLOGY CENTER 28	300
of the claims	is being transmitted via facsin visions of the electronic applic	nile to the United Stration processing pro	entaining a marked up version ates Patent and Trademark Office ototype period.  14 (No. of pages)	
		(Date)	(No. of pages)	
being filed in It is no authorized to	Examiner Dinh  ted is an Amendment After Fir response to your Office action of believed that any fees are re- charge payment of fees associa to Deposit Account No. 09-04	of January 9, 2003. quired. However, thated with this commo	ne Commissioner is hereby	
FROM:	James A. Lucas Phone - (440) 205 3600 Fax - (440) 205 3601 e-mail: <u>iim@driggslaw.com</u>			
Militarian are any organization and managed with all the stay are ma	Carole Giacomazzo			
		(Typed or Printed	Name of Person Signing Certificate)	

## ELECTRONIC APPLICATION PROCESSING PROTOTYPE

PATENT

### IN THE UNITED STATES PATENT AND TRADEMARK OFFICE

In re PATENT APPLICATION of Hall et al

Serial No.

09/811,101

Art Unit 2827

Filed:

March 16, 2001

Examiner Dinh

Title:

MULTI-LAYERED HIGH DENSITY

CONNECTIONS

Conf. No. 8303

Atty. Docket No. END920000087US1 (IEN-10-5540)

## PROPOSED AMENDMENT after FINAL

FAX RECEIVED

MAR - 7 2003

Assistant Commissioner for Patents Washington, D.C. 20231

**TECHNOLOGY CENTER 2800** 

Dear Sir:

This amendment is being filed in response to the FINAL office action dated January 9, 2003. Applicants are submitting this amendment under the provisions of the electronic application processing prototype program.

Accordingly, each section will begin on a separate sheet.

### **AMENDMENTS TO THE CLAIMS**

### in the Claims:

Kindly amend claim 1 as shown below wherein all claims and their status have been indicated:

- 1. (Currently Amended) An electronic sub assembly comprising a circuitized laminated substrate having top and bottom surfaces, and at least one beveled edge surface between said top and bottom surfaces, at least one active or passive device mounted on said at least one edge surface, at least one other active or passive device mounted on at least one of the top and bottom surfaces, a conductive lead embedded in the substrate electrically connected to an the active or passive device mounted on said at least one edge surface, the conductive lead also electrically connected to the at least one device on the top or bottom surface.
- (Original) The sub assembly according to claim 1 wherein each
  of the active or passive devices is selected from the group including chips,
  diodes, resistors, capacitors and printed wiring boards.
- 3. (Original) The sub assembly according to claim 1 further including an electrically conductive via extending into the substrate from each

device on the top or bottom surface into contact with a conductive lead connected to an edge mounted device.

- 4. (Original) The sub assembly according to claim 1 wherein the laminated substrate is selected from the group comprising a single or multiple laminates of a fiberglass reinforced prepreg and a conductive layer, and a single or multiple laminates of a ceramic module and a conductive layer.
- 8. (Previously amended) A printed circuit board having two spaced apart, generally parallel surfaces comprising a top surface and a bottom surface, a beveled edge surface between said top and bottom surfaces, a plurality of conductive leads embedded in the circuit board parallel to the top and bottom surfaces and terminating in one or more connection points along the beveled edge surface, an active or passive device mounted on said edge surface and electrically joined through at least one of said connection points to at least one of the conductive leads, and at least one other active or passive device mounted on the top or bottom surface electrically joined through one of said conductive leads to the edge mounted device.
- 9. (Original) The printed circuit board according to claim 8 further including a via on the top or bottom surface, and coupled to a top or bottom

mounted device, said via extending into the substrate into contact with a conductive lead connected to said edge mounted device.

- 10. (Original) The printed circuit board according to claim 8 wherein each active or passive device is selected from the group including chips, diodes, resistors, capacitors and printed wiring boards.
- 27. (Added by previous amendment after filing) The electronic sub assembly according to claim 1 wherein the edge surface is beveled at an angle of between 30° and 60° with respect to the top or bottom surface.
- 28. (Added by previous amendment after filing) The printed circuit board according to claim 8 wherein the edge surface is beveled at an angle of between 30° and 60° with respect to the top or bottom surface.